LISTING OF CLAIMS

In accordance with Rule 1.121, a complete claim listing is presented below. A status identified precedes each claim.

1-42 (Cancelled)

43. (Currently Amended) The exhaust system according to **Claim [[62]]** 67, wherein said rotatable propeller type blade assembly is mounted on a Teflon-filled bronze bearing that is rotatably mounted on a shoulder screw.

44-46 (Cancelled)

47. (Currently Amended) The exhaust system according to **Claim [[62]]** 67, wherein said rotatable propeller type blade assembly is comprised of multiple blades.

48. (Cancelled)

49. (Previously Presented) The exhaust system according to **Claim 47**, wherein said blades of said rotatable propeller type blade assembly are arranged substantially at about a 30 degree spiral twist relative to the path of said exhaust combustion gases.

50. (Cancelled)

51. (Currently Amended) The exhaust system according to **Claim [[62]]** 67, wherein said sound suppression materials are selected from the group consisting of fiberglass, glass wool, copper wool, copper strands, steel wool and a combinstion thereof.

52. (Currently Amended) The device received in **Claim [[63]]** 68, wherein said exhaust chamber system is joined directly to an internal combustion engine.

53-55 (Cancelled)

56. (Currently Amended) The device recited in **Claim [[63]]** 68, wherein said blade**[[s]]** **assembly** **[[are]]** **is** set between 20 - 60 degrees relative to the path of said exhaust gases.

57-66 (Cancelled)

67. (New) A high performance exhaust system for removing combustion gases from an internal combustion engine comprising:

a shell;

a tubular chamber within said shell;

a sleeve in said shell;

sound suppression materials in said sleeve;

said tubular chamber having a substantially constant interior diameter and being perforated with apertures to about 40 - 80% porosity;

an inlet tube subassembly fastened to said shell in communication with said tubular chamber;

an outlet in said chamber remote from said inlet tube for permitting combustion gases to exit said system;

a single rotatable propeller type blade assembly arranged in said inlet tube, said rotatable propeller being seated in but not blocking said chamber and capable of rotation when said combustion gases pass from said inlet tube into said tubular chamber,

rotation of said propeller assembly inducing passage of exhaust gases through said expansion chamber to exit through said outlet,

the length of said chamber being substantially many times greater than its diameter, said chamber having a flow cross section substantially 75% to 90% greater than the flow cross section of said inlet tube, so that gases entering said chamber are swirled into a tightly spun vortex thus creating a vacuum drawing gasses through said chamber at an accelerating rate to exit said outlet.

68. (New) A device for increasing the efficiency of an internal combustion engine having an exhaust for gases wherein back pressure of exhaust gases exerted on said engine is reduce, said

device comprising:

an inlet tube for exhaust gases in flow communication with said engine exhaust,

a chamber having a substantially constant interior diameter for receiving exhaust gases in flow communication with said inlet tube,

an outlet tube for exiting gases from said expansion chamber; and

a single blade assembly being adapted to move said exhaust gases into said chamber without blocking entry into said chamber;

wherein the length of said chamber is substantially many times greater than its diameter,

said chamber having a flow cross section substantially 75% to 90% greater than the flow cross section of said inlet tube,

so that gases entering said chamber are swirled into a tightly spun vortex thus creating a vacuum drawing gasses through said chamber at an accelerating rate to exit said outlet.

69. (New) A method for improving the performance of an internal combustion engine exhaust system comprising:

providing an inlet attached to an engine and a chamber having a substantially constant interior diameter attached to said inlet, the length of said chamber being substantially many times greater than its diameter, said chamber having a flow cross section substantially 75% to 90% greater than the flow cross section of said inlet, and an outlet from said chamber remote from said inlet,

attaching to said inlet a single rotatable propeller having a blade assembly arranged angularly disposed toward said chamber within said exhaust system without materially blocking the flow of exhaust gases from said engine;

rotating said propeller when exhaust gases pass from said inlet into said chamber, and

swirling exhaust gases entering said chamber responsive to rotating said propeller into a

tightly spun vortex thus creating a vacuum drawing gasses through said chamber at an accelerating rate to exit its outlet without materially inducing back pressure on said engine.